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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,258

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Toru Yano

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EXAMINER

ANGEBRANNDT, MARTIN J

ART UNIT

PAPER NUMBER

1795

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,258	Applicant(s) YANO ET AL.	
	Examiner Martin J. Angebrannt	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/8/08, 11/29/07 & 9/25/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The response of the applicant has been read and given careful consideration. Responses to the argument of the applicant are presented after the first rejection to which they are directed.

The obviousness double patenting is withdrawn based upon the amendments of the claims.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

This claim is incomplete as to form an optical recording medium, a substrate must be present and the cyanine dye is coated/provided upon the substrate as part of an optical recording material film/layer. This is a critical element. The specification fails to teach an optical recording medium with out a substrate, specifically the cyanine dyes are not self supporting.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 4 & 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, at line 7, after “benzyl groups, and”, please insert - - when not a pair or benzyl groups- -. To make it clear that this alternative is embraced by the claims.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Hamada et al. JP 2000-168233, in view of Nagatani et al. JP 10-278426, JPO Abstract of JP 03-224793 and Sakai et al. JP 58-021746.

Hamada et al. JP 2000-168233 (machine translation attached) teaches optical recording media using the indoleneic trimethine cyanine dyes of formula I, where Y1-Y3 may be formula III, where R4 is phenyl and l is one, m is zero to form a benzyl moiety. Further, this may be substituted by halogen, alkyl, alkenyl, alkenoxy, or alkoxy. (abstract and [0018-0021]. See dyes 7 and 10 which have N- ethylphenyl substituents. The resulting media have high stability and reliability (abstract and [0011])

Nagatani et al. JP 10-278426 (machine translation provided) teaches optical recording media with the indoleneic trimethine cyanine dyes of formula 1 where R1-R6 can be hydrogen, alkoxy, alkoxy, alkylhydroxy, aralkyl, alkenyl, alkylcarbonyl or alkylsulfonyl. (abstract and 0011))

JPO Abstract of JP 03-224793 (but not the document itself) teaches that R1-3 can be C1-8 alkyl, phenyl or benzyl.(© is 1991).

Sakai et al. JP 58-021746 teaches a cyanine analog where the terminal moieties are indolenic. Dyes H-11 and H-12 (page 3) show the benzyl moieties as N substituents. Dye H-10 shows where the benzyl moieties are bound to the carbon adjacent to the linkage binding the two terminal moieties.

It would have been obvious to one of ordinary skill in the art to modify dyes 7 or 10 of Hamada et al. JP 2000-168233 by forming the benzyl analogs where two benzyl moieties are bound to the carbon of the indolene ring in place of an alkyl moiety to form the dyes of the claims and to use these in optical recording media with a reasonable expectation of realizing the benefits ascribed to these dyes by Hamada et al. JP 2000-168233 108510 based upon the known use of aralkyl moieties in both locations as evidenced by Nagatani et al. JP 10-278426 and specifically benzyl moieties as disclosed in JPO Abstract of JP 03-224793 and the indolenic dyes of Sakai et al. JP 58-021746 which bear paired benzyl moieties.

The applicant is correct that the dye is not exemplified. The applicant argues that Nagatani et al. teaches away from the claimed invention, while there is a teaching of a preference to alkyl moieties, there is no teaching that the aralkyl moieties do not work. The applicant refers to a machine translation of JP 03-224793, but there is no machine translation in the record or for that matter available as it was published before 1993. Only the Derwent Abstract is in English. The applicant argues as if the abstract is not a document itself. Although the abstract is not supported by the underlying Japanese text in the patent document, it can motivate one, particularly one not reading Japanese, to make changes. While JP 58-021746 describes hydrazones, these are clearly structurally related to the indolenic cyanine dyes, specifically the indolenic terminal moieties bound by a chain with alternating double bonds and can serve to establish that the formation of indolenic terminal moieties was known and serves to establish a reasonable expectation of success in being able to form indolenic cyanine dyes with paired benzyl moieties.

The comparative data in the instant specification only uses dyes having solely alkyl substituents (see table 1), while the closest prior art is dye 7 [0027] of Hamada et al. 2000-168233. The applicant has not offered a reasonable basis as to why the comparative examples with compounds which do not include an alkylaryl moiety would be preferable to a comparison using the prior art compounds identified, particularly in view of these compounds would be available as the assignees for the Hamada reference and the instant application are the same. The examiner recognizes the difference between the compounds of the claims and those of the primary references as evidenced by the articulation of the rejection. The applicant argues that the teachings of the prior art only relate to symmetric compounds. Hamada et al. would remain as the closest art, noting that asymmetric dyes are exemplified in formulae 11-13 [0031-0033] and dye 12 might be the closest prior art.

The rejection stands.

8. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Hamada et al. JP 2000-168233, in view of Nagatani et al. JP 10-278426, JPO Abstract of JP 03-224793 and Sakai et al. JP 58-021746, further in view of Sato et al. '839.

Sato et al. '839 teach the increase in the solubility of cyanine dyes when the N substituents are different from one another (abstract and 2/4-15). The addition of stabilizers (quenchers) to recording layers is disclosed as enhancing the stability of recording layer (21/57-23/35).

To address the embodiments using compounds which are symmetric except for the N substituents (such as compound 23), as well as the issue of the effects of asymmetry, the examiner cites Sato et al. '839 and holds that it would have been obvious to use asymmetry in the

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cyanine dyes and optical recording media including them in the recording layer rendered obvious by the combination of Hamada et al. JP 2000-168233 with Nagatani et al. JP 10-278426, JPO Abstract of JP 03-224793 and Sakai et al. JP 58-021746, such as that induced by using different N substituents as taught by Sato et al. '839 to increase the stability of the dye compositions due to the increased solubility and resistance to degradation by light as evidenced in tables in columns 31 and 32.

9. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Hamada et al. JP 2000-168233, in view of Nagatani et al. JP 10-278426, JPO Abstract of JP 03-224793, Sakai et al. JP 58-021746 and Sato et al. '839, further in view of Tominaga et al. JP 2000-108510 or Tominaga et al. 2000-289335.

Tominaga et al. JP 2000-108510 (machine translation attached) teaches optical recording media using the indoleneic trimethine cyanine dyes of formula I, where A may be phenyl and X may be methylene to form a benzyl moiety. Further, this may be substituted by halogen, alkyl, alkenyl, alkenoxy, or alkoxy. (abstract and [0018-0021]. See dye 3 has N- ethylphenyl substituents. The media have high photostability, preservation stability and solubility (abstract and [0015]).

Tominaga et al. 2000-289335 (machine translation attached) teaches optical recording media using the indoleneic trimethine cyanine dyes of formula I, where R2 may be phenyl, l may be zero and R1 may be methylene to form a benzyl moiety. Further, this may be substituted by nitro, cyano, halogen, alkyl, alkoxy or the like. (abstract and [0018-0021]. See dye 3, which has N- ethylphenyl substituents. The media have high photostability, preservation stability and solubility (abstract and [0015]).

To address the issue of comparative data vs. alkyl substituted cyanine dyes, the examiner cites Tominaga et al. JP 2000-108510 or Tominaga et al. 2000-289335 which evidence the advantages of using the aralkyl substituents over alkyl substituents, and holds that this benefit would be realized in the media using the benzyl substituted dyes rendered obvious by the combination of Hamada et al. JP 2000-168233 with Nagatani et al. JP 10-278426, JPO Abstract of JP 03-224793, Sakai et al. JP 58-021746 and Sato et al. '839 as discussed above.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebranndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Martin J Angebranndt/
Primary Examiner, Art Unit 1795

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Martin J Angebranndt
Primary Examiner
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3/17/2008